

IN THE ABSTRACT:

Please amend the ABSTRACT as follows:

--A method for forming an oxide layer which provides uniform coverage of oxygen radicals across a surface of a substrate to enhance the oxidation rate and form a uniform layer of SiO<sub>2</sub> across a surface of a substrate. The method for forming an oxide layer includes applying a coating material to a substrate; heating the first layer at about atmospheric pressure to a first process temperature for a first time duration to cause the first layer to outgas and form a first processed layer; and heating the first processed layer at about atmospheric pressure to a second process temperature for a second time duration to form a layer of SiO<sub>2</sub>. The method may also include applying a second layer of the coating material over the cured layer of SiO<sub>2</sub>; heating the second layer of the coating material to the first process temperature for the first time duration to form a third processed layer; and heating the third processed layer to the second process temperature for the second time duration to form a fourth processed layer. provides the heat and oxygen radicals for SiO<sub>2</sub> formation through the combustion of a process flame. The process flame can be fueled by a combination of H<sub>2</sub> and O<sub>2</sub> process gases. The process flame can include a plurality of process flames directed substantially perpendicular to the target substrate to provide uniform heating of the substrate and a uniform deposition of oxygen radicals across the surface of the substrate to enhance the formation of an oxidation layer.